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WATER SUPPLY OUTLOOK FOR IDAHO



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

IDAHO DEPARTMENT OF WATER RESOURCES

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
JUNE 1, 1977

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SNOW COURSE MEASUREMENTS BY A SURVEY TEAM IN UTAH'S WASATCH RANGE.
ORC-254-10

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, 6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bazeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR IDAHO

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

R.M. DAVIS
ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D. C.

|||||
Released by

AMOS I. GARRISON, JR.
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
BOISE, IDAHO

In Cooperation with

C. STEPHEN ALLRED
DIRECTOR
IDAHO DEPARTMENT OF WATER RESOURCES

|||||
Report prepared by

JACK A. WILSON, Snow Survey Supervisor
E. DON HUBBLE, Asst. Snow Survey Supervisor
KATHERN G. WOOTTON, Statistical Assistant

SOIL CONSERVATION SERVICE
SNOW SURVEY SECTION
ROOM 345, 304 N. 8th. ST.
BOISE, IDAHO 83702

WATER SUPPLY OUTLOOK for IDAHO



GENERAL SUMMARY FOR JUNE 1, 1977

June 1 snow surveys normally made on key snow courses were cancelled in 1977 due to lack of snow. Most courses were bare on May 1. 1977 was a record low snow year throughout Idaho.

Cool wet weather covered nearly all of Idaho in May, reducing the immediate impact of the winter lack of precipitation.

Water supplies are forecast to be well below normal throughout Idaho for the 1977 irrigation season.

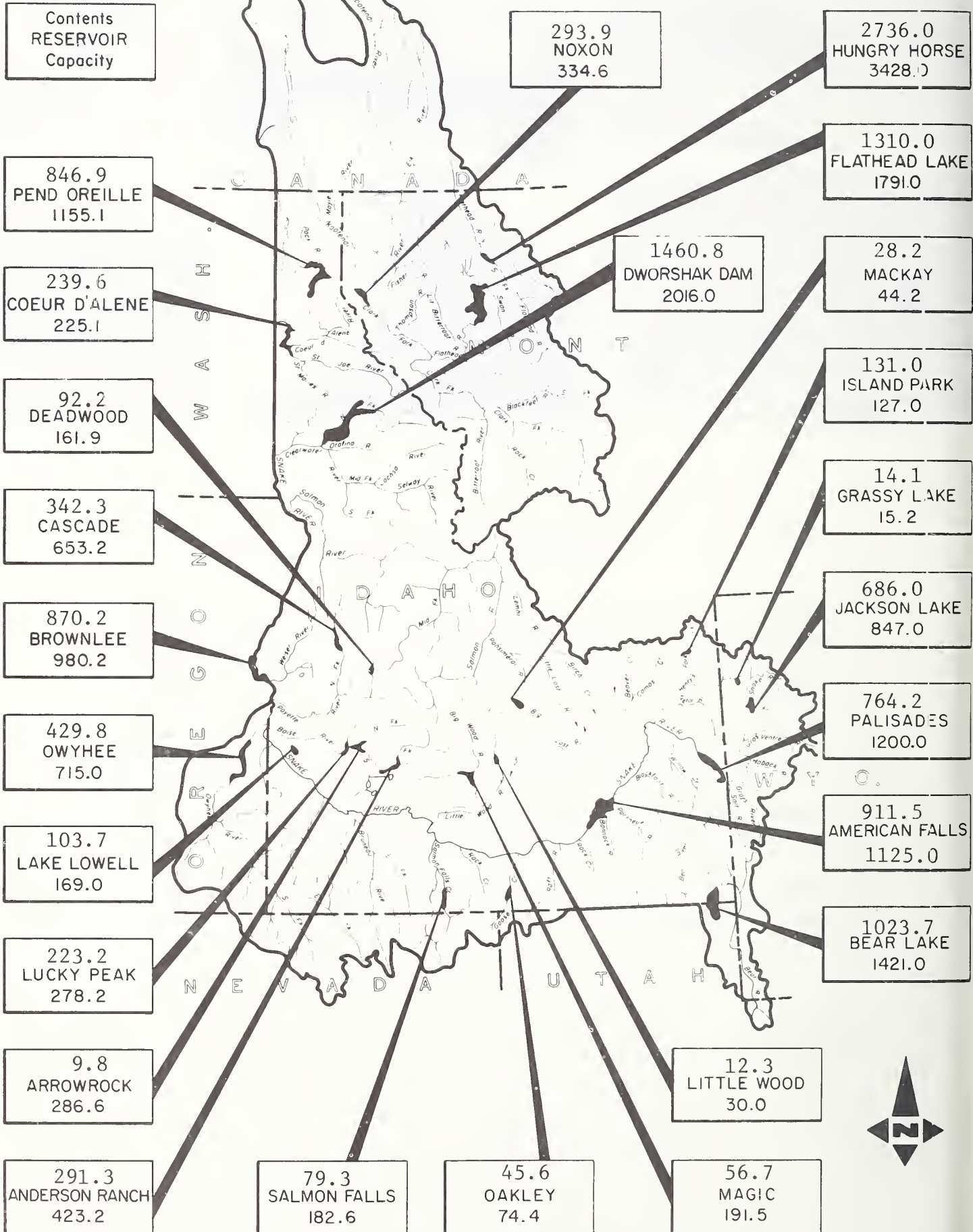
This report carries supplemental and corrected measurements made earlier in the season.

RESERVOIR STORAGE

USABLE CONTENTS (1,000 Acre Feet)

JUNE 1, 1977

50 0 50 100 150
SCALE IN MILES



SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average /

SUPPLEMENTAL MEASUREMENTSJANUARY 1, 1977

Kilgore	6200	1/1	0	0.0	4.9	4.4*
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JANUARY 15, 1977

Atlanta Summit	7500	1/17	11	1.7	20.5	--
Galena	7300	1/12	10	1.4	--	--
Galena Summit	8795	1/12	12	1.8	--	--
Graham Guard Station	5690	1/17	10	1.3	10.8	--
Jackson Peak	7000	1/19	13	2.6	19.7	--
Moore's Creek Summit	6100	1/14	13	2.1	24.1	--
Mount Baldy	9000	1/17	10	1.8	10.2	--
Trinity	7780	1/17	11	2.1	23.4	--
Vienna Mine	8960	1/17	17	2.9	21.7	--

FEBRUARY 1, 1977

Kellogg Peak (A)	5560	2/3	33	9.2	--	--
Mosquito Ridge (A)	5110	2/3	36	8.6	22.3	--
Roland Summit (A)	5200	2/3	30	8.4	--	--
Sunset (A)	5600	2/3	44	9.9	--	--

FEBRUARY 15, 1977

Above Burke	4100	2/14	27	7.7	17.8	--
Atlanta Summit	7500	2/14	10	1.8	22.8	--
Bad Bear	5500	2/15	0	0.0	12.5	--
Bogus Basin	6120	2/15	11	2.2	17.7	--
Bogus Basin Road	5360	2/15	0	0.0	5.2	--
Breezy Saddle	5000	2/18	23	6.0	--	--
Cayuse Airstrip	3700	2/18	14	4.0	--	--
Coolwater Mountain	6200	2/18	32	8.4	--	--
Fishlake Airstrip	5000	2/18	35	10.0	--	--
Forty-nine Meadows	4880	2/18	22	5.4	--	--
Galena	7300	2/14	0	0.0	11.8	--
Galena Summit	8795	2/14	10	2.2	15.8	--
Graham Guard Station	5690	2/14	6	1.2	14.1	--
Hemlock Butte	5500	2/18	39	11.1	--	--
Jackson Peak	7000	2/14	12	2.0	23.5	--
Lost Lake	6000	2/18	37	10.4	--	--
Moore's Creek Summit	6100	2/15	12	2.2	27.4	--
Mount Baldy	9000	2/15	9	1.8	11.4	16.4
Pierce Ranger Station	3170	2/22	14	3.0	--	--
Shanghai Summit	4600	2/18	20	5.7	--	--
Trinity Mountain	7780	2/14	11	1.8	30.9	--
Vienna Mine	8960	2/14	15	2.9	--	--

(b) 1958-72, 15 year period. #Not located directly on this drainage. * Estimated 1958-72, 15 year Average. (A) Aerial observation. Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average ⁶

MARCH 15, 1977

Above Burke	4100	3/14	47	12.2	--	--
Atlanta Summit	7500	3/16	26	5.9	28.0	--
Bad Bear	5500	3/14	10	2.9	18.8	--
Bogus Basin	6120	3/14	33	6.8	24.5	--
Bogus Basin Road	5360	3/14	10	3.0	5.4	--
Fourth of July	3200	3/14	18	5.6	12.6	--
Galena	7300	3/15	14	2.8	17.3	--
Galena Summit	8795	3/15	23	4.6	22.6	--
Graham Guard Station	5690	3/16	14	4.0	17.3	--
Irving	7035	3/14	14	2.5	--	--
Jackson Peak	7000	3/16	31	7.4	29.0	--
Lookout Pass	5120	3/14	58	15.4	34.6	--
Moore's Creek Summit	6100	3/14	34	7.2	33.9	--
Mount Baldy	9000	3/15	20	3.6	16.0	19.7
Pierce Ranger Station	3170	3/15	21	6.0	--	11.1
Prairie	4900	3/15	2	0.6	9.9	--
Sherwin	3200	3/14	21	5.2	16.2	14.2
Trinity Mountain	7780	3/16	28	6.2	36.6	--
Webber Creek	6700	3/14	10	1.9	--	--
Vienna Mine	8960	3/16	32	6.4	32.7	--

APRIL 1, 1977

Breezy Saddle	5000	4/4	58	15.5	--	--
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APRIL 15, 1977

Aspen Grove	6600	4/15	10	3.5	--	--
Atlanta Summit	7500	4/14	20	6.3	34.8	--
Bad Bear	5500	4/14	0	0.0	13.0	--
Birch Creek	6800	4/15	0	0.0	--	--
Blue Ridge	6800	4/15	0	0.0	--	--
Bogus Basin	6120	4/15	17	5.2	22.7	--
Bogus Basin Road	5360	4/15	0	0.0	0.8	--
Bone	6300	4/15	0	0.0	--	--
Breezy Saddle	5000	4/19	33	10.7	--	--
Brockman Guard Station	6430	4/15	0	0.0	--	--
Buck Meadows	5650	4/19	42	14.0	--	--
Coolwater Mountain	6200	4/19	58	18.2	--	--
Crater Meadows	6100	4/19	65	23.5	--	--
Elk Butte	5550	4/19	37	12.0	--	--
Fish Lake Airstrip	5000	4/19	51	17.4	--	--
Forty-nine Meadows	4880	4/19	32	9.8	--	--
Galena	7300	4/14	0	0.0	15.7	--
Galena Summit	8795	4/14	21	5.4	26.4	--
Goat Lake	6600	4/19	66	21.8	--	--
Graham Guard Station	5690	4/14	0	0.0	13.7	--
Granite Peak	6000	4/19	60	19.1	--	--

(b) 1958-72, 15 year period. #Not located directly on this drainage. * Estimated 1958-72, 15 year Average. (A) Aerial observation. Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW

DRAINAGE BASIN and or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average ¹ / ₂

APRIL 15, 1977 (Cont'd)

Hell Creek	7100	4/15	0	0.0	--	--
Hemlock Butte	5500	4/19	65	22.7	--	--
Henry Creek	5650	4/15	0	0.0	--	--
Jackson Peak	7000	4/14	22	6.4	35.8	--
Lookout	5120	4/14	42	15.3	37.5	--
Lost Lake	6000	4/19	68	21.7	--	--
Medicine Ridge	5920	4/19	60	18.5	--	--
Moore's Creek Summit	6100	4/14	24	6.6	39.6	31.7
Mountain Meadows	6300	4/19	43	12.4	--	--
Mud Creek	7150	4/15	0	0.0	--	--
Orogrande Mountain	7800	4/19	74	19.8	--	--
Pierce Ranger Station	3170	4/13	4	1.3	--	--
Prairie	4900	4/15	0	0.0	0.0	--
Shanghai Summit	4600	4/19	27	9.3	--	--
Sheep Mountain	6510	4/15	0	0.0	--	--
Tex Creek	6700	4/15	5	1.0	--	--
Trinity Mountain	7780	4/14	20	6.9	43.1	--
Vienna Mine	8960	4/14	27	8.7	39.0	--

MAY 1, 1977

Breezy Saddle	5000	4/27	15	4.3	--	--
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MAY 15, 1977

Lookout	5120	5/13	1	0.4	24.8	--
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EXTRA MEASUREMENTS - FEBRUARY 22, 1977

Bad Bear	5500	2/22	5	0.5	--	--
Moore's Creek Summit	6100	2/22	22	3.2	--	--

CORRECTIONS TO PREVIOUSLY PUBLISHED 1977 DATAJANUARY 1, 1977

Above Burke	4100	12/27	25	4.1	8.4	--
Crooked Fork	3600	12/29	16	2.9	6.7	--
Lolo Pass	5240	12/28	26	4.4	13.8	11.7*

MARCH 1, 1977

Hall Creek (A)	7560	2/28	3	0.3	6.0	4.8*
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APRIL 1, 1977

Above Gilmore	8200	4/4	20	4.4	11.8	10.5*
Aspen-Hall Pass (A)	8110	4/4	28	5.2	13.2	9.6*

(b) 1958-72, 15 year period. #Not located directly on this drainage. * Estimated 1958-72, 15 year Average. (A) Aerial observation W Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average ^b

APRIL 1, 1977 CORRECTIONS (Cont'd)

Hall Creek	7560	4/4	17	3.4	7.5	--
Redfish Lake Flat	6570	3/31	18	3.9	14.8	--

(b) 1958-72, 15 year period. #Not located directly on this drainage. * Estimated 1958-72, 15 year Average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

Agencies and Organizations Cooperating in Idaho Snow Surveys

GOVERNMENT AGENCIES

States:

Idaho Department of Water Resources
State of Idaho Department of Fish and Game
University of Idaho
Idaho State University
Montana Agricultural Experiment Station
Montana State Water Conservation Board
Montana Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon Cooperative Snow Surveys
Oregon State Engineer and Corps of
State Watermasters
Utah Cooperative Snow Surveys
Wyoming Cooperative Snow Surveys

Federal:

U.S. Army Engineers

U.S. Department of Agriculture
Forest Service
Agricultural Research Service
Statistical Reporting Service

U.S. Department of Commerce
NOAA, National Weather Service

U.S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Water Resources Division, Geological Survey
National Park Service
Bureau of Land Management

PUBLIC UTILITIES

The Montana Power Company
Washington Water Power Company
Idaho Power Company
Utah Power and Light Company

ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District
Blaine Soil Conservation District
Boise Project Board of Control
Idaho Water District #01
Little Wood River Irrigation District
Mann Creek Irrigation District
Salmon Falls Creek Irrigation Company
Twin Falls Soil Conservation District
Big Wood Irrigation Company
Owyhee Project - North & South Board of Control
Valley Soil Conservation District
Portneuf Soil and Water Conservation District

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SOIL CONSERVATION SERVICE

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